

AMENDMENTS TO THE CLAIMS:

Please cancel claims 1-19 without prejudice.

Please add new claims 20-38.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-19 (**Cancelled**)

20. (New) A method for diagnosing cancer comprising detecting evidence of differential expression of PPP3CC in a patient sample wherein evidence of differential expression indicates that the patient has cancer.

21. (New) The method of claim 20, wherein the difference in said expression indicates that the patient has a propensity towards cancer.

22. (New) The method of claim 20 wherein the cancer is selected from the group consisting of carcinoma, lymphoma, leukemia, prostate cancer, stomach cancer and breast cancer.

23. (New) The method of claim 20, wherein PPP3CC gene expression in the patient sample is up-regulated relative to PPP3CC gene expression in normal tissue.

24. (New) The method of claim 23, wherein the up-regulation of expression indicates that the patient has a propensity towards cancer.

25. (New) The method of claim 20 wherein evidence of differential expression is detected by measuring the level of an expression product of PPP3CC.

26. (New) The method of claim 25 wherein the expression product is a polypeptide or mRNA.
27. (New) The method of claim 25 wherein the expression product is a mRNA having a sequence at least 98% identical to SEQ ID NO:1587.
28. (New) The method of claim 25 wherein the expression product is a mRNA having a sequence of SEQ ID NO:1587.
29. (New) The method of claim 25 wherein the level of expression product in the patient sample is compared to a control.
30. (New) The method of claim 29 wherein the control is a known normal tissue of the same tissue type as in the patient sample.
31. (New) The method of claim 29 wherein the level of the expression product in the sample is increased at least 50% relative to the control.
32. (New) The method of claim 29 wherein the level of the expression product in the sample is increased at least 100% relative to the control.
33. (New) The method of claim 29 wherein the level of the expression product in the sample is increased at least 150% relative to the control.
34. (New) The method of claim 20, wherein the patient sample comprises tissue selected from the group consisting of lymphatic tissue, prostate tissue, stomach tissue and breast tissue.
35. (New) A method of diagnosing cancer comprising:

a) determining the level of an expression product comprising a nucleotide sequence having at least 95% sequence identity to a sequence of SEQ ID NO:1587, or a complement thereof, in a patient sample; and

b) comparing said level of the expression product in (a) to a level of the expression product in a second sample, said second sample comprising a normal tissue, wherein a difference between the level of the expression products in (a) and the level of the expression products in the second sample indicates that the patient has lymphoma, colon cancer, stomach cancer or breast cancer.

36. (New) A method of screening for anti-cancer activity comprising:

(a) contacting a cell that expresses a gene with a candidate anti-cancer agent, said gene comprising a nucleotide sequence at least 95% identical to SEQ ID NO:1586; and

(b) detecting a difference between the level of gene expression in the cell in the presence and in the absence of the candidate anti-cancer agent, wherein a difference between the level of gene expression in the cell in the presence and in the absence of the candidate anti-cancer agent indicates that the candidate anti-cancer agent has anti-cancer activity.

37. (New) The method of claim 36 wherein the candidate anti-cancer agent is an antibody, small organic compound, small inorganic compound or polynucleotide.

38. (New) The method of claim 36 wherein the cancer is carcinoma, lymphoma, leukemia, prostate cancer, stomach cancer and breast cancer.